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EXAMINER

GUILL, RUSSELL L

ART UNIT

PAPER NUMBER

2123

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/507,002

Applicant(s)

BRACEWELL, ROBERT H

Examiner

Russ Guill

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8,10,15,17-19,22,33,41,47,48 and 50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8,10,15,17-19,22,33,41,47,48 and 50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

#### DETAILED ACTION

1. This Office Action is in response to an Amendment dated October 15, 2007. Claims 1 - 2, 4 - 6, 8, 10, 15, 17 - 19, 22, 33, 41, 47 - 48 and 50 are pending. Claims 1 - 2, 4 - 6, 8, 10, 15, 17 - 19, 22, 33, 41, 47 - 48 and 50 have been examined. Claims 1 - 2, 4 - 6, 8, 10, 15, 17 - 19, 22, 33, 41, 47 - 48 and 50 have been rejected.

2. The Examiner would like to thank the Applicant for the well-presented amendment, which was useful in the examination process. The Examiner appreciates the effort to carefully analyze the Office Action, and make appropriate arguments and amendments.

#### *Response to Remarks*

3. Regarding objections to the specification for minor spelling errors:

a. Applicant's amendments overcome the objections.

4. Regarding claims 1, 13, 22, 30, 34, 35 and 39 objected to for minor informalities:

a. Regarding claim 1, Applicant's arguments are persuasive.

b. Regarding claim 13, Applicant's arguments are persuasive.

c. Regarding claim 22, Applicant's arguments are persuasive.

d. Regarding claim 30, Applicant's arguments are persuasive.

e. Regarding claims 34, 35 and 39, Applicant's arguments are persuasive.

5. Regarding claims 21 - 23, 28 - 29, 30 - 31, 37, 48 - 49 and 51 rejected under 35 USC § 112, second paragraph:

a. Applicant's arguments have been fully considered, and are persuasive.

6. Regarding claims 24 - 32, 34 - 36, 38, 40, 42 and 47 rejected under 35 USC § 101:

a. Applicant's arguments have been fully considered, and are persuasive.

7. Regarding claims 1 and 33 rejected under 35 USC § 102 and 35 USC § 103

respectively:

a. Applicant's arguments have been fully considered, and are persuasive, as follows. However, a new rejection is made below.

b. The Applicant argues:

c. Applicant has amended independent claims 1 and 33 and both limit their subject matter to a directed link between selected nodes "wherein said directed link is bi-directional to permit a user to traverse the link in either direction" (emphasis added). The Conklin reference fails to disclose or suggest the desirability of utilizing a bi-directional link between selected nodes, especially where such nodes represent design knowledge stored in different files of a plurality of files.

d. The use of such bi-directional links confers a number of advantages on the present invention. It enables the design rationale for large problems to be captured as is discussed in detail in Applicant's specification (page 21, line 31 to page 22, line 2). Further advantages of the bi-directional links between nodes in different files are set out on page 22, lines 17-25.

e. Systems such as Conklin require that the design rationale for any one project must, if it is to be interlinked, be captured on a single 2D canvas. This leads to problems in visual and spatial disorientation, which problems are actually admitted in the Conklin reference (section 5.9 beginning page 329). Conklin, while recognizing the problems, fails to suggest any solution, other than perhaps limiting the number of nodes present or including a map (layout) of the entire node structure to ease navigation. Accordingly, the Conklin device and its successors,

such as "Questmap" and "Compendium," are unsuitable for widespread routine capture of engineering design rationale.

f. Applicant's concept of utilizing bi-directional links enables the rationale behind complex engineering design problems to be captured in an intuitive way. These bi-directional links allow nodes representing items of design knowledge to appear once only in a location on the canvas in which their context is apparent, yet still be linked to other parts of the canvas where that particular item of design knowledge may be relevant. The bi-directional links can also link items of design knowledge in separate canvases, stored in separate files, thereby allowing a large complex design rationale to be stored across a number of mutually cross-referencing files avoiding the need for any dedicated relational database management system often required with prior art systems.

g. The result of Applicant's improvements due to the bi-directional links over the prior known systems is a tool that has enjoyed considerable success in the field of engineering design rationale capture. None of the prior known tools have been suitable for this purpose.

- i. The Examiner respectfully replies:
- ii. The Examiner appreciates the discussion of the features and benefits because it helps to better understand the advantages of the invention, and the context of the claims.

h. The Applicant argues:

- i. The Hirose patent discloses a different manner of presenting design rationale to a user in which a "storyboard" presentation is constructed by a trace unit 9 (see Hirose's column 10, lines 10-47). While a storyboard of screens can be navigated back and forth, there is no disclosure of bi-directional links between nodes representing specific items of design knowledge (as claimed in Applicant's independent claims 1 and 33). Hirose, while allowing the development of a solution to an issue to be followed through on, fails to enable the linking between items of design knowledge arising from the addressing of

different issues in the same project as is enabled by the present invention,

j. In view of the above, inasmuch as neither Conklin nor Hirose teach Applicant's amended independent claims 1 and 33 (the requirement of a "bi-directional" link is missing), even if these references were combined, they would not suggest or render obvious the subject matter of claims 1 and 33 or the claims dependent thereon.

- i. The Examiner respectfully replies:
- ii. A new rejection is made below with a new reference. However, Hirose appears to support bi-directional links, as shown for example, in figure 3, box labeled "ISSUE", where boxes A-1 and B-1 are linked with a bi-directional link, and column 3, lines 61 - 62.

k. The Applicant argues:

l. Moreover, while the Examiner argues that the art of Conklin and Hirose are analogous art, that does not meet the test required by the Court of Appeals for the Federal Circuit of establishing some "reason" or "motivation" for combining these two different references. There is no reason why one would pick and choose elements or method steps from the two different references and then combine them specifically in the manner of Applicant's claims (even if there were a disclosure of the missing "bi-directional link" as noted above). The Examiner simply fails to provide the required reason for combining the Conklin and Hirose references. Accordingly, any further rejection of independent claims 1 and 33 or claims dependent thereon is respectfully traversed.

- i. The Examiner respectfully replies:
- ii. The motivation to use the art of Hirose with the art of Conklin would have been the benefits recited in Hirose including a cost effective, useful and inexpensive design process recorder that benefits design and redesign (*Hirose, column 4, lines 9 - 20*).

8. Regarding claims rejected under 35 USC § 103:

a. The Applicant argues:

b. In section 20 on page 18, claims 42 and 46 stand rejected under 35 USC §103 as unpatentable over Conklin in view of Regli ("A Survey of Design Rationale Systems: Approaches, Representation, Capture and Retrieval" 2000). Claims 42 and 46 have been cancelled without prejudice, thereby obviating the rejection under 35 USC § 103.

i. The Examiner respectfully replies:

ii. Applicant's argument is persuasive.

c. The Applicant argues:

d. In section 21 on page 20 of the Official Action, claims 16, 17, 20, 22 and 23 stand rejected under 35 USC §103 as unpatentable over the Conklin/Hirose combination, further in view of Regli. A number of these claims have been cancelled without prejudice and the only remaining claims are claims 17 and 22. Inasmuch as claims 17 and 22 both depend from claim 1, the above comments distinguishing claim 1 from the Conklin/Hirose combination are herein incorporated by reference.

e. There is no suggestion that Regli contains the disclosure missing from the Conklin and Hirose references, i.e., a bi-directional link. In fact, Regli teaches the use of hyperlinks and it is well known that hyperlinks are uni-directional and do not enable a user to navigate back and forth from one node to another. Even if the Examiner contends that a "back-button" feature of many internet browsers permits bi-directional linking, it is known that a truly bi-directional link is visible and transversible from either side of the link at any time. This, of course, is not the case with "back-button" browsing.

f. As a result of the above, even if Conklin, Hirose and Regli were combined, they would not disclose the subject matter of independent

claim I or claims 17 and 22 dependent thereon. Moreover, in teaching a uni-directional link, Regli teaches away from the claimed combination. Therefore, any further rejection of remaining claims 17 and 22 is respectfully traversed.

- i. The Examiner respectfully replies:
- ii. Since Regli teaches hyperlinks (page 222, section 5.2 Automatic Rationale Capture, right-side column, fourth paragraph that starts, "PHIDIAS's [18] integral . . ."), the Applicant argues that hyperlinks are uni-directional. The Examiner respectfully disagrees, as supported in the following references:

- (1) Kogan (U.S. Patent Number 5,809,317) teaches bi-directional hyperlinks (*column 4, lines 35 - 40*);
- (2) Nguyen (U.S. Patent Number 5,481,666) teaches bi-directional hyperlinks (*column 4, lines 35 - 40*);
- (3) Harald Weinreich et al., "The Look of the Link - Concepts for the User Interface of Extended Hyperlinks", 2001, Proceedings of the 12<sup>th</sup> ACM conference on Hypertext and Hypermedia, pages 19 - 28; teaches bi-directional hyperlinks (*page 22, left-side column, section "Bi-directional Links"*);

- iii. Since hyperlinks appear to have been commonly known to be bi-directional, Regli appears to teach bi-directional links rather than uni-directional links, and thus, does not teach away from the claimed invention. Further, Regli does not appear to disparage bi-directional links, and thus, does not teach away from the claimed invention.

- g. The Applicant argues:



h. Claims 29-31 stand rejected under 35 USC §103 as being unpatentable over Conklin in view of Regli. Claims 29-31 have been cancelled, thereby obviating any further rejection thereto.

- i. The Examiner respectfully replies:
- ii. Applicant's arguments are persuasive.

### *Claim Objections*

9. Claim 33 is objected to for the following minor informality: In the last line, the claim recites, "said file". The phrase appears to mean, "said one of said files".

10. Claim 47 is objected to for the following minor informality: While the claim recites a computer program, a computer program allows the possibility of source code, which is non-functional descriptive material. The Applicant recited an example of a claim with an improved description. The claim is interpreted as, "A data storage medium on which is stored executable instructions which when executed by a processor perform the method of claim 41".

### *Claim Rejections - 35 USC § 112*

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

a. Claims 18 - 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- i. Regarding claim 18 and dependent claims, the claim recites, "the at least one predefined issue". The phrase appears to have insufficient

antecedent basis. For the purpose of claim examination, the phrase is interpreted as “a predefined issue”. Correction or amendment is required.

*Claim Rejections - 35 USC § 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1 - 2, 4 - 6, 8, 10, 15, 17, 18 - 19, 22, 33, 41, 47, 48, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conklin (Jeff Conklin et al.; “gIBIS: A Hypertext Tool for Exploratory Policy Discussion”, art provided by the Applicant on the Information Disclosure Statement dated December 22, 2004) in view of Hirose (U.S. Patent Number 5,784,286) further in view of Regli (W.C. Regli et al.; “A Survey of Design Rationale Systems: Approaches, Representation, Capture and Retrieval”, 2000, Engineering with Computers, Volume 16, pages 209 - 235).

- a. The art of Conklin is directed to a design knowledge capture tool (unnumbered first page assumed to be page 303).
- b. The art of Hirose is directed to a design knowledge capture tool (column 2, lines 65 - 67).
- c. The art of Regli is directed to a design rationale capture tools (page 209, Abstract).
- d. The art of Conklin and the art of Regli are analogous art because they are both directed to the art of a design knowledge capture tools.

e. The art of Conklin and the art of Hirose are analogous art because they are both directed to the art of a design knowledge capture tool.

f. Regarding claim 1:

g. Conklin appears to teach:

h. a storage means for storing design knowledge information generated or acquired during progress of a first design project, wherein the design knowledge information extends beyond product design information and includes information on evolution of a first design project and causal dependencies between items of said design knowledge (pages 304 - 305, section 2. THE IBIS METHOD, and page 305, figure 1; it would have been obvious that a storage means was used to store the information) said storage means comprising a plurality of records ~~files, each file~~ having a predefined knowledge structure for including a list of issues to be addressed (page 305, figure 1, box labeled "issue"; figure 1 displays an entity-relationship diagram, and the ordinary artisan would have known that elements of an entity-relationship diagram were stored as records with predefined structure);

i. an input means for allowing a user to input information into the storage means (page 308, figure 5, and explanatory text on page 307, fourth paragraph that starts with, "In this example . . .");

j. A presentation means for presenting a file template ~~of each of said plurality of files~~ to the user to allow the information to be input by the user in said predefined knowledge structure (page 308, figure 5, and explanatory text on page 307, fourth paragraph that starts with, "In this example . . .", and fifth paragraph; and page 306, figure 2), wherein said presentation means presents each said structure as an array of nodes, each node representing an item of said design knowledge (page 306, figure 2, left-side panel of the window displays an array of nodes, each node representing an item of knowledge design), wherein a dependency between items of said design knowledge is represented by a directed link between selected nodes (page 306, figure 2, left-side panel of the window displays an array of nodes with links), wherein

~~said directed link is bi directional to permit a user to traverse the link in either direction, and wherein said selected nodes represent items of design knowledge (page 306, figure 2, left-side panel of the window displays an array of nodes, each node representing an item of design knowledge) stored in different files.~~

k. Conklin does not specifically teach:

l. said storage means comprising a plurality of ~~records~~ files, each file ~~having a predefined knowledge structure for including a list of issues to be addressed;~~

~~m. A presentation means for presenting a file template of each of said plurality of files to the user to allow the information to be input by the user in said predefined knowledge structure, wherein said presentation means presents each said structure as an array of nodes, each node representing an item of said design knowledge, wherein a dependency between items of said design knowledge is represented by a directed link between selected nodes, wherein said directed link is bi-directional to permit a user to traverse the link in either direction, and wherein said selected nodes represent items of design knowledge stored in different files.~~

n. Hirose appears to teach:

o. presenting a file template of each of said plurality of files (figure 6A; it would have been obvious to the ordinary artisan to use multiple windows for a display).

p. said storage means comprising a plurality of ~~records~~ files, each file having a predefined knowledge structure (figure 5, elements stage records, focus records, sketch/drawing model, and column 7, lines 20 - 35 which recites three "stores") ~~for including a list of issues to be addressed~~

q. Regli appears to teach:

r. said storage means comprising a plurality of ~~records~~ files, each file having a predefined knowledge structure (page 213, figure 2, left-side box labeled "Design Repositories" contains a plurality of files, each file having a predefined knowledge structure).

s. wherein said directed link is bi-directional to permit a user to traverse the link in either direction (page 213, left-side column, third paragraph, "REMAP/MM [26] supports hyper-links among design deliberation records . . ."; and page 222, right-side column, fourth paragraph, "using hyper-links to interconnect knowledge items"; the ordinary artisan would have known that hyperlinks were bi-directional; please refer to the references of Kogan and Nguyen and Weinreich);

t. design knowledge stored in different files (page 213, figure 2, left-side box labeled "Design Repositories" contains a plurality of files, each file having a predefined knowledge structure).

u. The motivation to use the art of Hirose with the art of Conklin would have been the benefits recited in Hirose including a cost effective, useful and inexpensive design process recorder that benefits design and redesign (column 4, lines 9 - 20).

v. The motivation to use the art of Regli with the art of Conklin would have been the benefit recited in Regli that keeping track of design rationale will provide a great aid to designers, and provides a basis for designers to explore more design options (page 209, right-side column, second paragraph that starts with, "Usually a developed . . .").

w. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Hirose and the art of Regli with the art of Conklin to produce the claimed invention.

x. Regarding claims 33, 41, 47, 48, 50:

y. Conklin appears to teach:

z. A method for capturing design knowledge information wherein the information extends beyond product design information and includes information on evolution of a first design project and causal dependencies between items of design knowledge (page 305, figure 1; and page 306, figure 2);

aa. storing the information generated or acquired during progress of a first design project in a storage means (pages 304 - 305, section 2. THE IBIS METHOD, and page 305, figure 1; it would have been obvious that the information was stored), said storage means comprising a plurality of records ~~files, each file~~ having a predefined knowledge structure for including a list of issues to be addressed (page 305, figure 1, box labeled "issue"; figure 1 displays an entity-relationship diagram, and the ordinary artisan would have known that elements of an entity-relationship diagram were stored as records with predefined structure);

bb. ~~selecting one of said files~~ and presenting a file template ~~of each of said plurality of files~~ to the user to allow the information to be input by the user in said predefined knowledge structure (page 308, figure 5, and explanatory text on page 307, fourth paragraph that starts with, "In this example . . .", and fifth paragraph; and page 306, figure 2), each structure being presented as an array of nodes, each node representing an item of said design knowledge (page 306, figure 2, left-side panel of the window displays an array of nodes, each node representing an item of knowledge design), wherein a dependency between items of said design knowledge is represented by a directed link between selected nodes (page 306, figure 2, left-side panel of the window displays an array of nodes with links), ~~wherein said directed link is bi-directional to permit a user to traverse the link in either direction,~~ and wherein said selected nodes represent items of design knowledge (page 306, figure 2, left-side panel of the window displays an array of nodes, each node representing an item of design knowledge) ~~stored in different files and~~ inputting information into said file (page 308, figure 5, and explanatory text on page 307, fourth paragraph that starts with, "In this example . . .").

cc. Conklin does not specifically teach:

~~dd. said storage means comprising a plurality of records files, each file having a predefined knowledge structure for including a list of issues to be addressed;~~

~~ee. selecting one of said files and presenting a file template of each of said plurality of files to the user to allow the information to be input by the user in said predefined knowledge structure, each structure being presented as an array of nodes, each node representing an item of said design knowledge, wherein a dependency between items of said design knowledge is represented by a directed link between selected nodes, wherein said directed link is bi-directional to permit a user to traverse the link in either direction, and wherein said selected nodes represent items of design knowledge stored in different files and inputting information into said file;~~

ff. Hirose appears to teach:

gg. said storage means comprising a plurality of records files, each file having a predefined knowledge structure (figure 5, elements stage records, focus records, sketch/drawing model, and column 7, lines 20 - 35 which recites three "stores") ~~for including a list of issues to be addressed.~~

hh. presenting a file template of each of said plurality of files (figure 6A; it would have been obvious to the ordinary artisan to use multiple windows for a display).

ii. Regli appears to teach:

jj. said storage means comprising a plurality of records files, each file having a predefined knowledge structure (page 213, figure 2, left-side box labeled "Design Repositories" contains a plurality of files, each file having a predefined knowledge structure).

kk. wherein said directed link is bi-directional to permit a user to traverse the link in either direction (page 213, left-side column, third paragraph, "REMAP/MM [26] supports hyper-links among design

deliberation records . . ."; and page 222, right-side column, fourth paragraph, "using hyper-links to interconnect knowledge items"; the ordinary artisan would have known that hyperlinks were bi-directional; please refer to the references of Kogan and Nguyen and Weinreich);

ll. design knowledge stored in different files (page 213, figure 2, left-side box labeled "Design Repositories" contains a plurality of files, each file having a predefined knowledge structure).

mm. Official Notice is taken that it was old and well known by the ordinary artisan at the time of invention to select one of a plurality of files in the analogous art of software development. At the time of invention, it would have been obvious to an ordinary artisan to select one of a plurality of files as a design knowledge base. The motivation would have been the knowledge of the ordinary artisan that there would be more than one design knowledge base, and the application program of Conklin would need to select a knowledge base file to use. In support of the Official Notice, please refer to the reference, by Michael I. Hyman et al., "Visual C++ 5 for Dummies", 1997, IDG Books Worldwide, pages 51 and 61 which display a file open menu and a list of files from which to select. nn. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Hirose and the art of Regli and Official Notice with the art of Conklin to produce the claimed invention.

oo. Regarding **claim 2**:

pp. Conklin appears to teach:

qq. An interactive graph editor (page 306, figure 2).



rr. Regarding claim 4:

ss. Conklin appears to teach:

tt. in use, a user is prompted by the knowledge structure, to input at least one possible answer to at least one of said issues, the at least one possible answer being stored as one of the, or each, piece of information at the label of the node (page 307, last paragraph, extending on to page 308, and page 308, figure 5).

uu. Regarding claim 5:

vv. Conklin appears to teach:

ww. the knowledge structure prompts the user to input at least one argument that supports or refutes the possible answer, the at least one argument being stored as one of the, or each, piece of information at the label of the node (page 305, figure 1, especially the box labeled "argument", and page 307, last paragraph, extending on to page 308, and page 308, figure 5).

xx. Regarding claim 6:

yy. Conklin appears to teach:

zz. the at least one argument is classified as a supporting or a refuting argument (page 305, figure 1, especially the links labeled "supports" and "objects-to").

aaa. Regarding claim 8:

bbb. Conklin appears to teach:

ccc. said at least one argument is classified as a valid or an invalid argument (page 312, figure 11, graph config parameters, element "argument display bias").

ddd. Regarding claim 10:

eee. Conklin appears to teach:

fff. the at least one answer is classified as an open, an accepted or rejected answer (page 305, second paragraph; answers are open).

ggg. Regarding claim 15:

hhh. Conklin appears to teach:

iii. each node appears once only in the predefined file plurality of files (page 306, figure 2).

jjj. Conklin does not specifically teach:

kkk. A plurality of files.

lll. Regli appears to teach:

mmm. A plurality of files (page 213, figure 2, left-side box labeled "Design Repositories" contains a plurality of files).

nnn. Regarding claim 17:

ooo. Conklin does not specifically teach:

ppp. the, or each, node can be linked to an additional node on the same file.

qqq. Regli appears to teach:

rrr. the, or each, node can be linked to an additional node on the same file (page 224, section 6.1 Navigating Archived Design Rationale, and page 213, left-side column, third paragraphs, REMAP/MM [26] supports hyper-links; it would have been obvious that hyper-links could be linked to a node on the same file).

sss. Regarding claim 18:

ttt. Conklin appears to teach:

uuu. a sub-issue to the at least one predefined issue can be identified and input into the storage means (page 305, figure 1, links to the box "issue", labeled "REPLACES, QUESTIONS OR IS-SUGGESTED-BY").

vvv. Regarding claim 19:

www. Conklin appears to teach:

xxx.a user is prompted to input at least one possible answer to the sub-issue (page 307, last paragraph, extending on to page 308, and page 308, figure 5).

yyy. Regarding claim 22:

zzz. Conklin does not specifically teach:

aaaa. a processing means to identify at least one predefined issue addressed on a first design project, which issue is encountered on a subsequent design project.

bbbb. Regli appears to teach:

cccc. a processing means to identify at least one predefined issue addressed on a first design project, which issue is encountered on a subsequent design project (page 210, right-side column, last sentence, extending on to page 211, and page 224, section 6.1 Navigating Archived Design Rationale, and page 213, left-side column, third paragraphs, REMAP/MM [26] supports hyper-links; it would have been obvious that hyper-links could be linked to a node on a subsequent design project).

14. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the Applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed

invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. The entire reference is considered to provide disclosure relating to the claimed invention.

### *Conclusion*

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure:

- a. Kogan (U.S. Patent Number 5,809,317) teaches bi-directional hyperlinks (*column 4, lines 35 - 40*);
- b. Nguyen (U.S. Patent Number 5,481,666) teaches bi-directional hyperlinks (*column 4, lines 35 - 40*);
- c. Harald Weinreich et al., "The Look of the Link - Concepts for the User Interface of Extended Hyperlinks", 2001, Proceedings of the 12<sup>th</sup> ACM conference

on Hypertext and Hypermedia, pages 19 - 28; teaches bi-directional hyperlinks (*page 22, left-side column, section "Bi-directional Links"*);

d. Michael I. Hyman et al., "Visual C++ 5 for Dummies", 1997, IDG Books Worldwide, pages 51 and 61; teaches to display a file open menu, and a window with a list of files from which to select.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russ Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday - Friday 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG

Russ Guill  
Examiner  
Art Unit 2123

  
PAUL RODRIGUEZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100